

MEMORANDUM

TO: Paul E. Foster, P.E.

THROUGH: Nancy E. Terranova

FROM: Shaikh A. Tayeb

SUBJECT: Title V Permit Renewal; AQM-003/00111-Renewal 1 (Proposed)
Delaware Solid Waste Authority-Cherry Island Landfill

DATE: December 21, 2006

Background

Cherry Island Landfill (CIL) is located at the Northern Solid Waste Management Center (NSWMC) in Wilmington, New Castle County, Delaware. CIL (the facility) is owned by the Delaware Solid Waste Authority (DSWA). Currently the facility is operated under a Title V permit which has been expired. Based on the information available, the Department ("AQM") advertised DSWA's Title V permit renewal application and the *draft* permit for public review on 10/22/06. The public comments period was ended on 11/21/06. Note that the following two (2) applications were also advertised with the Title V renewal application.

- Title V significant permit modification dated 11/22/05.
- Chesmont flare permit amendment application dated 7/20/06.

The information of above applications was incorporated into the *draft* Title V renewal permit ("*draft* permit").

Public hearing request received

None.

Comments on *draft* permit

The Department received comments on *draft* permit from DSWA on 11/21/06 and from EPA Region III on 11/17/06. AQM responses on DSWA and EPA Region III comments are attached with this memorandum.

Revised Tables 2 and 3

Tables 2 and 3 of the memorandum dated 10/16/06 have been revised for Emission Unit 2 as shown below. 'State Enforceable Only Requirements' is added to this emission unit. See EPA Region III comments attached.

Table 2, Memorandum dated 10/16/06: *Draft* permit: AQM-003/00111-Renewal 1.

Emission Units	Emission Unit Description
Emission Unit 1	Chesmont Engineering Candle Flare with a maximum rated gas flow of 1200 scfm
Emission Unit 2	Twelve (12) passive elevated combustion flares. (State Enforceable Only Requirements) (Emission Points 2 through 13.)
Emission Unit 3	Landfill and gas collection system.

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Emission Units	Emission Unit Description
Emission Unit 4	Gas treatment plant.
Emission Unit 5	East Flare with a maximum rated gas flow of 3000 scfm
Emission Unit 6	North Flare with a maximum rated gas flow of 3000 scfm

Table 3, Memorandum dated 10/16/06: *Draft* permit: AQM-003/00111-Renewal 1.

Reference	Regulation No. 1102 Permit Designation
<u>APC-90/0133</u>	<u>APC-90/0133-Operation (Amendment 2)</u> , dated September 26, 1997. Chesmont Engineering candlestick flare with a maximum rated gas flow of 1200 scfm
<u>APC-95/0466</u>	<u>APC-95/0466-Operation</u> , dated May 15, 1995. Twelve (12) passive elevated combustion flares. (State Enforceable Only Requirements)
<u>APC-2004/0710</u>	<u>APC-2004/0710-Operation (NSPS)(MACT)</u> , dated September 28, 2005. Two (2) LFG Specialties open flares with a maximum rated gas flow of 3000 scfm each

Note

(1) Passive flares are needed only for odor control. Typically, these flares are used when gas wells are disconnected due to landfilling operations. These units are for short term use only and are subject to State Enforceable only requirements. (2) Based on a discussion between the Department and Ms. Angela Marconi from DSWA on 12/21/06, the annual and semi-annual compliance reports submittal dates are modified (see Pages 13 and 15 of the attached proposed permit).

Significant amendments to the landfill NSPS and emission guidelines

On September 8, 2006 EPA proposed in the Federal Register* significant amendments to the landfill NSPS and emission guidelines. The amendments, when promulgated, will clarify what constitutes treated landfill gas (LFG) and who is responsible for compliance activities where multiple parties are involved in the ownership or associated LFG collection, control, and/or treatment systems. Upon EPA's receipt and approval of related amendments to the Delaware landfill 111(d) plan, or promulgation of the amended Federal 111(d) plan, whichever occurs first, a revision of the CIL Title V permit will be required.

*Federal Register 53272, Vol. 71, No. 174.

Conclusion

Based on the attached comments from DSWA and the EPA Region III, the *draft* permit has been revised to *proposed* permit.

Recommendation

Send the attached *proposed* permit to DSWA and the EPA Region III for comments. EPA has forty-five (45) days to either approve or deny the *proposed* Title V renewal permit.

Attachments

1. *AQM responses on EPA Region III comments on draft AQM-003/00111-Renewal 1*
2. *AQM responses on DSWA comments on draft AQM-003/00111-Renewal 1*

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pc: Dover Title V File

Attachment 1

AQM responses to EPA Region III comments on *draft* Title V permit AQM-003/00111-Renewal 1.

Comments on Memorandum

Item No.	EPA comments	AQM responses
1	Tables 2, 3 and 5, page 6 - Revise the Tables and related notes to clarify that the passive flares are needed only for odor control, and accordingly, are State Enforceable Only Requirements.	<p>This proposed memo reflects the EPA comment. The following sentence is added in revision: The passive flares are needed only for odor control, and accordingly, are State Enforceable Only Requirements.</p> <p>Unit No. 2 (passive flares) is not listed in Table 5.</p> <p>See Tables 2 and 3, and Note on Page 2 of this memorandum.</p>
2	For the public record, the Memorandum should note that on September 8, 2006 EPA proposed in the <u>Federal Register</u> (71 FR 53272) significant amendments to the landfill NSPS and emission guidelines. The amendments, when promulgated, will clarify what constitutes treated landfill gas (LFG) and who is responsible for compliance activities where multiple parties are involved in the ownership or associated LFG collection, control, and/or treatment systems. Upon EPA's receipt and approval of related amendments to the Delaware landfill 111(d) plan, or promulgation of the amended Federal 111(d) plan, whichever occurs first, a revision of the CIL Title V permit will be required.	<p>This proposed memo reflects the EPA comment. See 'Significant amendments to the landfill NSPS and emission guidelines' on Page 2.</p>

Comments on *Draft* permit

Item No.	EPA comments	AQM responses
3	<p>Condition 3, Table 1, paragraph b. Emission Unit 2, Twelve Passive Elevated Combustion Flares for Odor Control - Section 1. i. A. Operational Limitations, states, "Each portable passive flare shall be used for temporary installation and operation only as odor control device." [Emphasis added.]</p> <p>Accordingly, the draft permit paragraphs/sections/conditions, relating to emission unit 2, need to be identified as State Enforceable Only. Although Condition 3, paragraph g. 3. i., identifies Facility Wide State Only Odor Requirements, there is no reference to the portable passive flare odor requirements of Unit 2.</p>	<p>Condition 3-Table 1(b)(1)(i)(A) is revised to read, "Each portable passive flare shall be used for temporary installation and operation only as odor control device...."</p> <p>Condition 3-Table 1(b) for Emission Unit No. 2 is revised to read "Emission Unit No. 2-Twelve Passive Elevated Combustion Flares for Odor Control (State Enforceable only). All terms and conditions under Emission Unit No. 2 are State Enforceable Only. Odor requirements are addressed under 'facility wide state only odor requirements' as per DE Air Regulation No. 19, Section 2.1. Separate odor requirements for Unit</p>

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No. 2 are not necessary.

Attachment 2

Part 1: AQM responses to DSWA comments on *draft* Title V permit AQM-003/00111-Renewal 1.

Item No.	Permit Condition	DSWA comments	AQM responses
1	Condition 3(c)(2)(v)	Please amend the report due dates to coincide with the semi-annual reporting (the last day of September and the last day of March)	This condition is amended as follows: "...Such reports shall be submitted by the last of September (covering the period from March 1 through August 31) and by the last day of March (covering the period from September 1 through February 28 or 29 in a leap year) of each calendar year..."
2	Condition 3-Table 1(a)(2)(i)(B)	Please amend the gas plant/collection system operating hours to Monday through Friday 0700 hours until 1530 hours.	This condition remains unchanged. This is consistent with the permit conditions 3.4 of APC-2004/0746-C (NSPS)(MACT) for two low-NOx enclosed flares with a H ₂ S pretreatment system and 3.1.2.3 of APC-2004/0710-Operation (NSPS)(MACT) for two 3,000 scfm open flares.
3	Condition 3-Table 1(a)(3)(i)	Please add the following statement, "Emission limits specified therein are for the Chesmont flare only."	Condition 3-Table 1(a) identifies all terms and conditions for Chesmont flare. An addition of this statement to this condition is not necessary.
4	Condition 3-Table 1(b)(1)(iii)(D)	Please amend this section to read, "Visual inspections shall be conducted each weekday with the exception of holidays that the gas plant operation personnel are not on site." This change corresponds with the September 28, 2001 minor permit modification of AQM-003/00111.	Condition 3-Table 1(b)(1)(iii)(D) is revised to read, "Visual inspections shall be conducted each weekday with the exception of holidays that the gas plant operation personnel are not on site."
5	Condition 3-Table 1(b)(1)(v)	DSWA would like to change the reporting requirements so that the Department will receive notification of passive flare relocation within 24 hours of relocation (rather than providing prior notification). Weather conditions often require quick relocation of landfilling operations and this does not allow for convenient notification 24 hours prior passive flare relocation.	This condition remains unchanged. This is consistent with condition 7 of the original passive flares permit APC-95/0466-Operation and the recently issued Title V permit AQM-005/00099-R1 for Southern Solid Waste Center. Please note, for some of DSWA landfills, timely notifications have not been issued even after the flare was relocated. Therefore, AQM does not believe it is appropriate to relax notification timing of this condition.
6	Condition 3-Table	Please amend the reference "(c)(2)(vi)(B)"	The reference is revised to read

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Item No.	Permit Condition	DSWA comments	AQM responses
	1(c)(2)(v)(2)	to read "(c)(2)(i)(B).	"Condition 3-Table 1(c)(2)(i)(B)"
7	Condition 3-Table 1(d)(1)(i)(C)	Please amend the gas plant/collection system operating hours to Monday thorough Friday 0700 hours until 1530 hours.	See response to Item # 2.
8	Condition 3-Table 1(e)(2)(i)(B)	Please amend the gas plant/collection system operating hours to Monday thorough Friday 0700 hours until 1530 hours.	See response to Item # 2.
9	Condition 3-Table 1(g)(4)(i)(A)	Please amend the reference to "2004/0710-Constrcution (NSPS)(MACT), Condition 3.3" to read "2004/0710-Operation (NSPS)(MACT), Condition 3.2"	The reference is revised to read "APC-2004/0710-Operation (NSPS)(MACT), Conditions 3.2 and 3.3".
10	Condition 3-Table 1(g)(4)(ii)(A)	Please amend the reference to "Condition 3-Table 1(g)(2)(i)(A)" to read "Condition 3-Table 1(g)(4)(i)(A)".	The reference is revised to read "Condition 3-Table 1(g)(4)(i)".
11	Condition 3-Table 1(g)(4)(ii)(B)	Please amend the reference to "Condition 3-Table 1(g)(2)(i)(B, (c), and (D) to read "Condition 3-Table 1(g)(4)(i)(B), (C), and (D)".	The reference is revised to read "Condition 3-Table 1(g)(4)(i)".
12	Condition 3-Table 1(g)(4)(iii)(A)	Please amend the reference to "Condition 3-Table 1(f)(4)(i)(A)" to read "Condition 3-Table 1(g)(4)(i)(A)".	The reference is revised to read "Condition 3-Table 1(g)(4)(i)(A)".
13	Condition 3-Table 1(g)(4)(iii)(A)	Please amend the reference to "2004/0710-Constrcution (NSPS)(MACT), Condition 3.3" to read "2004/0710-Operation (NSPS)(MACT), Condition 3.2"	The reference is revised to read "APC-2004/0710-Operation (NSPS)(MACT), Condition 3.2 dated 9/28/05".
14	Condition 3-Table 1(g)(4)(iv)	Please amend the reference to "Condition 3-Table 1(f)(4)(ii)" to read "Condition 3-Table 1(g)(4)(ii)".	The reference is revised to read "Condition 3-Table 1(g)(4)(ii)".

Part 2: AQM responses to DSWA comments on *draft* Title V permit AQM-003/00111-Renewal 1. DSWA received these comments from SCS Engineers.

Item No.	Permit Condition	SCS Engineers comments	AQM responses
1	Condition 1(a)	Please amend the emission unit descriptions for the Chesmont, East and North flares to include "at 50 percent methane" following	The methane content in landfill gas (LFG) varies over time. Addition to this statement is not necessary.

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Item No.	Permit Condition	SCS Engineers comments	AQM responses
		the stated flowrate.	
2	Condition 3-Table 1(a)(2)(v)(A)(2)	Please amend the language to read, "Description and duration of all periods when the control device was not operating (when collected gas is routed to the flare) for a period exceeding 1 hour and length of time the control device was not operating."	This condition is amended as follow: Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. 1 hour exceedance is counted if the collected landfill gas is directed through the control device (flare) while it is not operating.
3	Condition 3-Table 1(a)(3)(i)	Please remove the emission limit for CH ₄ from the Chesmont flare. Methane is not regulated pollutant and should not have an emission limit.	CH ₄ emission limitation for Chesmont flare is removed.
4	Condition 3-Table 1(c)(iii)(C)	Please remove the following requirement, "The owner/operator shall monitor the average weekly flow rate of landfill gas collected at the flare station for three (3) months after the well(s) decommissioning and compare with the three (3) months prior to well(s) decommissioning to determine if gas collection has increased, decreased or remained constant as a result of the decommissioning of the extraction points." Well decommissioning flow monitoring should be deleted because so many factors could affect the total flow rate. Consequently, the results are not meaningful relative to the decommissioned wells.	The correct permit condition number of this monitoring requirement is Condition 3-Table 1(c)(5)(iii)(A). This condition will remain unchanged. Primarily, a landfill gas well is considered to be decommissioned if the well is unproductive. This monitoring requirement is to serve that purpose. Furthermore, this monitoring requirement is adopted from Section 3 of 'LFG extraction point decommissioning procedure' submitted by DSWA to the Department in April 2004. This permit condition is consistent with DSWA's permit AQM-005/00099(R1) for Southern Solid Waste Management Center.
5	Condition 3-Table 1(e)(3)(i)	Please remove the emission limit for CH ₄ from the North and east flares. Methane is not a regulated pollutant and should not have an emission limit.	CH ₄ emission limitation is removed from permit condition.